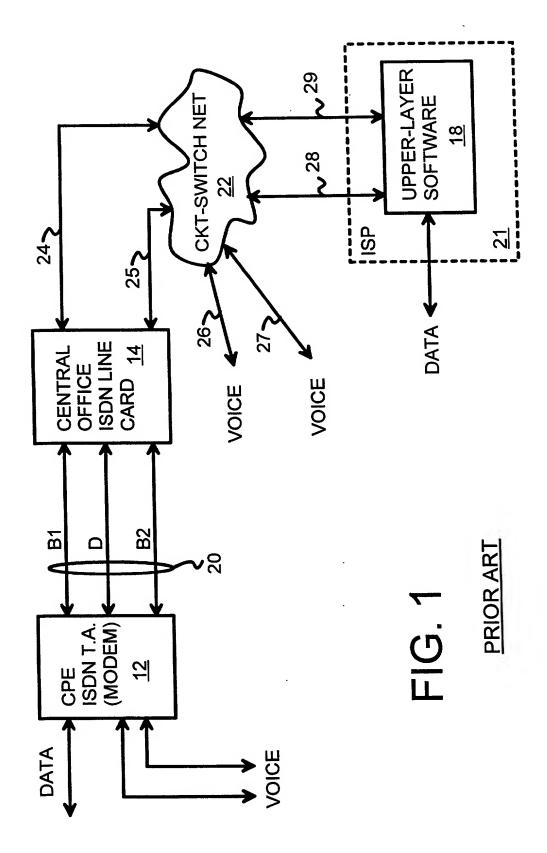
EXPRESS MAIL No. EL734639746US Title: DYNAMICALLY-ASSIGNED VOICE AND DATA CHANNELS IN A DIGITAL-SUBSCRIBER LINE (DSL)
Inventors: Anthony J.P. O'Toole *et al.*Atty. Docket No.: 21676-06533

Sheet 1 of 13



EXPRESS MAIL No. EL734639746US Title: DYNAMICALLY-ASSIGNED VOICE AND DATA CHANNELS IN A DIGITAL-SUBSCRIBER LINE (DSL) Inventors: Anthony J.P. O'Toole *et al.* Atty. Docket No.: 21676-06533 Sheet 2 of 13

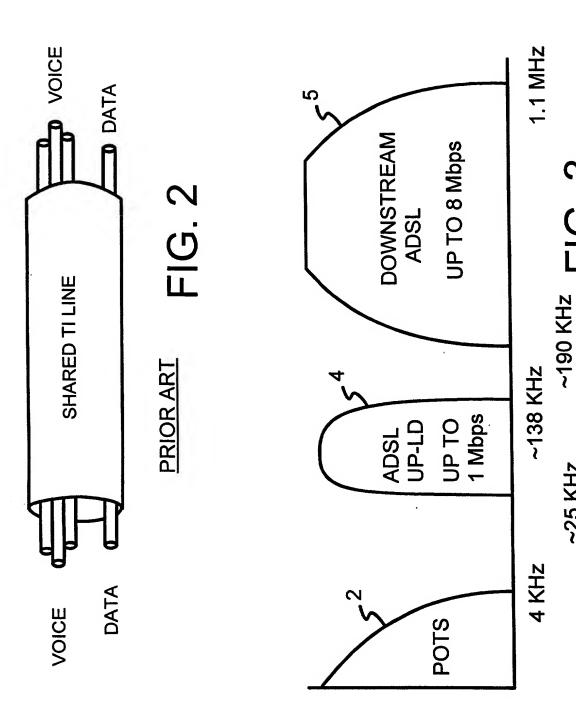
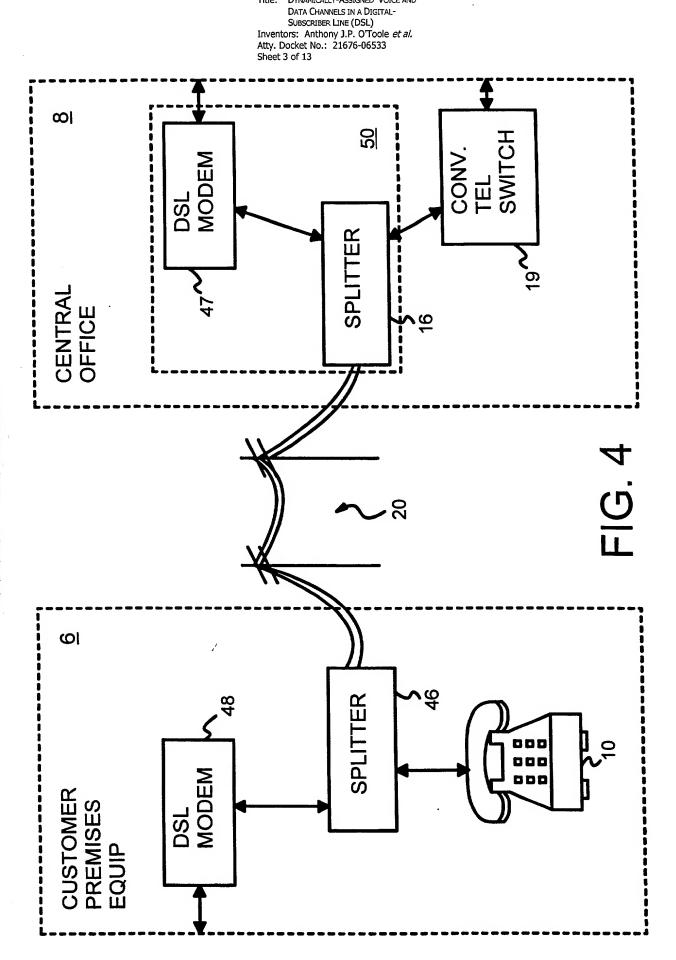


FIG. 3

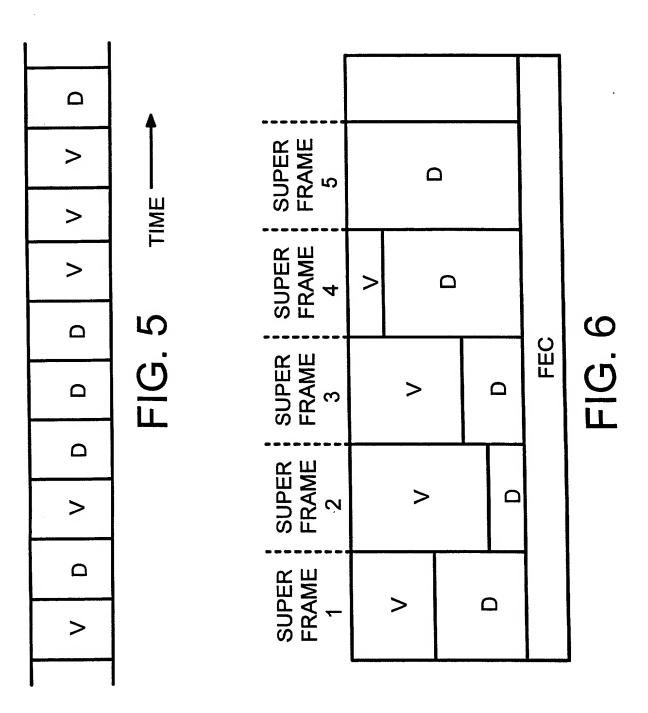
~25 KHz



EXPRESS MAIL No. EL734639746US
Title: Dynamically-Assigned Voice and

EXPRESS MAIL No. EL734639746US Title: DYNAMICALLY-ASSIGNED VOICE AND DATA CHANNELS IN A DIGITAL-SUBSCRIBER LINE (DSL)
Inventors: Anthony J.P. O'Toole *et al.*Atty. Docket No.: 21676-06533

Sheet 4 of 13



EXPRESS MAIL No. EL734639746US Title: Dynamically-Assigned Voice and DATA CHANNELS IN A DIGITAL-SUBSCRIBER LINE (DSL.)

Inventors: Anthony J.P. O'Toole et al.
Atty. Docket No.: 21676-06533

Sheet 5 of 13

	FIG. 7				
SUPER FRAME N+3	CURRENT FORMAT: DATA=10 VOICE=6	NEXT FORMAT: DATA=10 VOICE=6	N+2	0 0 0 0 1 1	DATA DS0
SUPER FRAME N+2	CURRENT FORMAT: DATA=11 VOICE=5	NEXT FORMAT: DATA=10 VOICE=6	N+1	0 0 0 0 0 0 0 0 0 0 0 0 0 1	DATA
SUPER FRAME N+1	CURRENT FORMAT: DATA=12 VOICE=4	NEXT FORMAT: DATA=11 VOICE=5	z	0 0 0 0	DATA
SUPER FRAME N	CURRENT FORMAT: DATA=12 VOICE=4	NEXT FORMAT: DATA=12 VOICE=4	SUPERFRAME	TIME-SLOT BITS	SWITCHABLE CHANNEL

EXPRESS MAIL No. EL734639746US

Title: DYNAMICALLY-ASSIGNED VOICE AND

DATA CHANNELS IN A DIGITAL-SUBSCRIBER LINE (DSL) Inventors: Anthony J.P. O'Toole *et al.* Atty. Docket No.: 21676-06533 Sheet 6 of 13

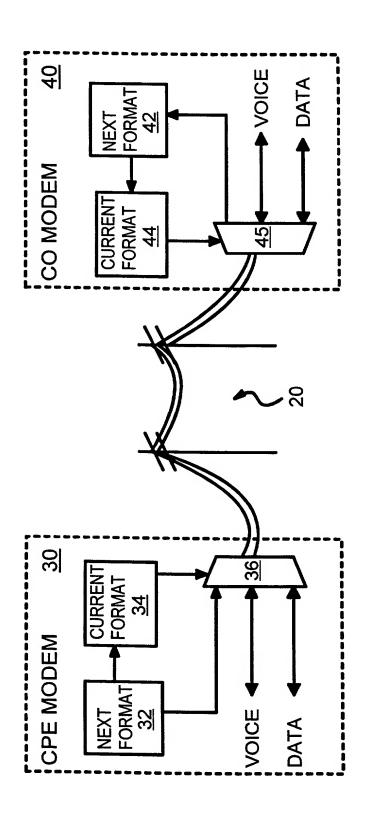
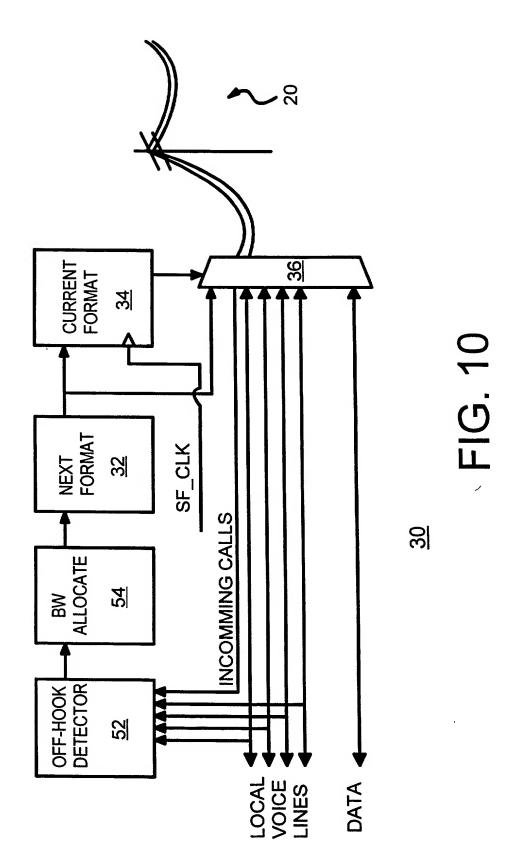


FIG. 9

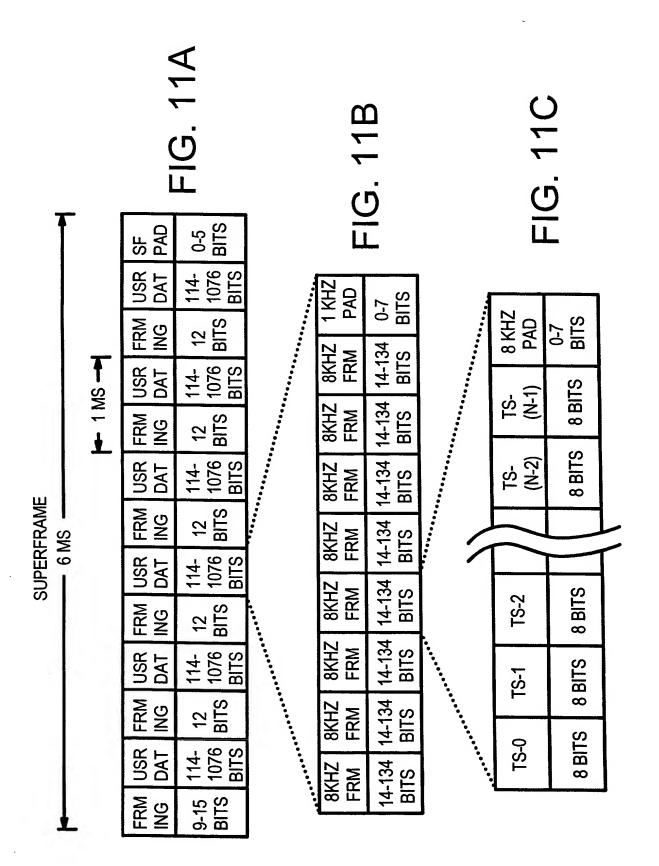
EXPRESS MAIL No. EL734639746US Title: DYNAMICALLY-ASSIGNED VOICE AND DATA CHANNELS IN A DIGITAL-Subscriber Line (DSL)
Inventors: Anthony J.P. O'Toole *et al.*Atty. Docket No.: 21676-06533
Sheet 7 of 13



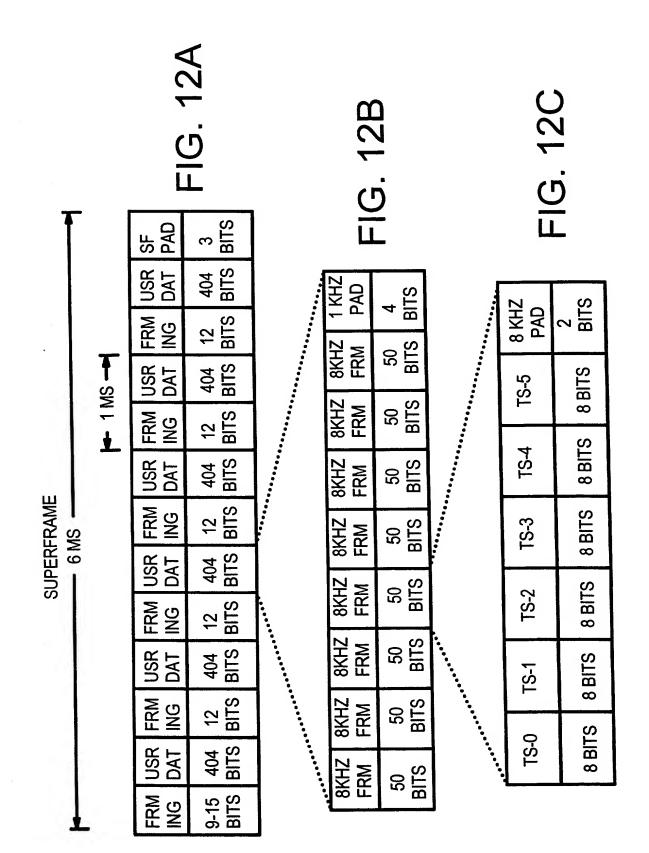
EXPRESS MAIL NO. EL734639746US
Title: DYNAMICALLY-ASSIGNED VOICE AND
DATA CHANNELS IN A DIGITALSUBSCRIBER LINE (DSL)

Inventors: Anthony J.P. O'Toole *et al.* Atty. Docket No.: 21676-06533

Sheet 8 of 13



EXPRESS MAIL NO. EL734639746US
Title: DYNAMICALLY-ASSIGNED VOICE AND
DATA CHANNELS IN A DIGITALSUBSCRIBER LINE (DSL)
Inventors: Anthony J.P. O'Toole *et al.*Atty. Docket No.: 21676-06533
Sheet 9 of 13

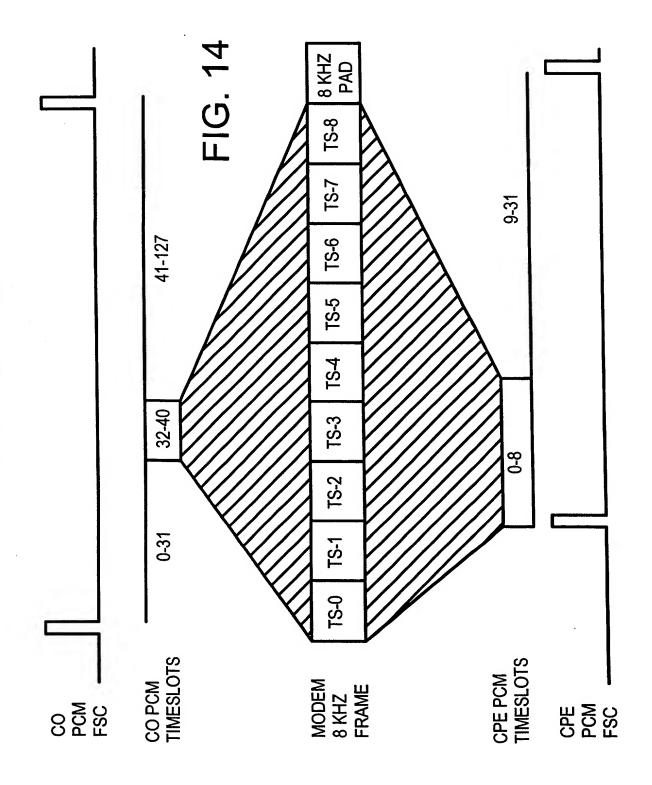


EXPRESS MAIL No. EL734639746US
Title: DYNAMICALLY-ASSIGNED VOICE AND
DATA CHANNELS IN A DIGITALSUBSCRIBER LINE (DSL)
Inventors: Anthony J.P. O'Toole *et al.*Atty. Docket No.: 21676-06533
Sheet 10 of 13

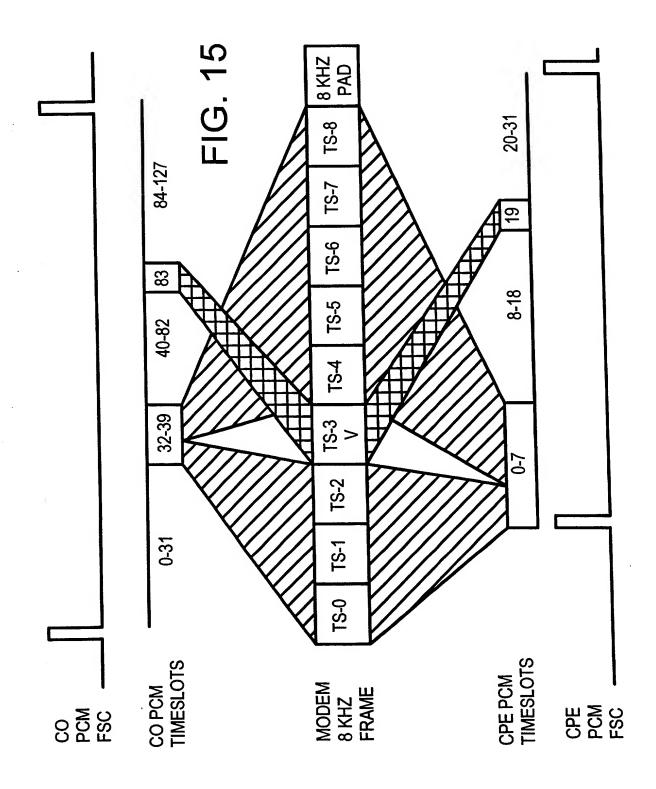
				•		
7		SF PAD	0-5 BITS	a.e.e.e.e.e.e	CRC	6 BITS
		USR DAT	114- 1076 BITS	.e.e.e.e	ALARM &	STATUS 5 BITS
		FRM	12 BITS		AL.	ST B
	<b>∓</b> 1 MS <b>±</b>	USR DAT	114- 1076 BITS		EOC	14 BITS
	+	FRM	12 BITS			
111		USR DAT	114- 1076 BITS		# STUFF	BITS 3 BITS
SUPERFRAME	2	FRM ING	12 BITS	•	RS SYNC	1 BIT
UPER	5	USR DAT	114- 1076 BITS	•••••		
0,		FRMING	12 BITS		FORM	32 BITS
		USR DAT	114- 1076 BITS		FRAME FORMAT	S B
		FRMING	12 BITS		l	(0
		USR DAT	114- 1076 BITS		SYNC	8 BITS
	_	FRMING	9-15 BITS		STUFF BITS	0-6 BITS

FIG. 13

EXPRESS MAIL No. EL734639746US Title: Dynamically-Assigned Voice and Data Channels in a Digital-Subscriber Line (DSL)
Inventors: Anthony J.P. O'Toole et al.
Atty. Docket No.: 21676-06533
Sheet 11 of 13



EXPRESS MAIL No. EL734639746US
Title: DYNAMICALLY-ASSIGNED VOICE AND
DATA CHANNELS IN A DIGITALSUBSCRIBER LINE (DSL)
Inventors: Anthony J.P. O'Toole *et al.*Atty. Docket No.: 21676-06533
Sheet 12 of 13



EXPRESS MAIL No. EL734639746US Title: DYNAMICALLY-ASSIGNED VOICE AND DATA CHANNELS IN A DIGITAL-

Subscriber Line (DSL)
Inventors: Anthony J.P. O'Toole *et al.*Atty. Docket No.: 21676-06533
Sheet 13 of 13

SUPERF 0	FRAME		SUPERFRAME 1	-	SUPERFRAME 2		SUPERFRAME 3	RAME	SUPEI	SUPERFRAME 0
ZEED I	SEED	REED	REED	REED REED	REED	REED REED REED	REED	REED	REED	REED
<u>-</u> E	SOLM	-SOLM	-SOLM	-SOLM	-SOLM  -SOLM  -SOLM  -SOLM  -SOLM  -SOLM  -SOLM  -SOLM  -SOLM	-SOLM	-SOLM	-SOLM	-SOLM	-SOLM
<u>)</u> H	CODE	CODE	CODE	CODE C	CODE	CODE	CODE	CODE	CODE	CODE
VORD W	MORD	WORD	WORD	WORD	WORD	WORD	WORD	WORD	WORD	WORD
	<del>-</del>	7	က	4	5	9	7	8	0	<b>-</b>

8 KH7	8 KHZ	8 KHZ	8 KHZ	2 8 KHZ 8 KHZ 8 KHZ 8 KHZ 8 KHZ 8 8	8 KHZ	8 KHZ	8 KHZ	8 KHZ	8 KHZ	8 KHZ 8 KHZ 8 KHZ	8 KHZ
FRMO	FRM 1	FRM 2	FRM 3	FRM3 FRM4 FI	FRM 5	FRM 5 FRM 6 FRM 7	FRM 7	FRM 8	FRM 9	FRM 8 FRM 9 FRM 10	10 FRM 11

TS-1 TO TS-N	Ŧ
TS-1 TO TS- (N-1)	
TS-1 TO TS- (N-1)	VORD B -
TS-1 TO TS-N	SODEV
TS-1 TO TS-N	RS (
TS-1 TO TS-N	17
TS-1 TO TS-N	4 0
TS-1 TO TS- (N-1)	
TS-1 TO TS-N	WORD A
TS-1 10 TS-N	RS CODE
TS-1 TO TS-N	
TS-1 TO TS-N	]